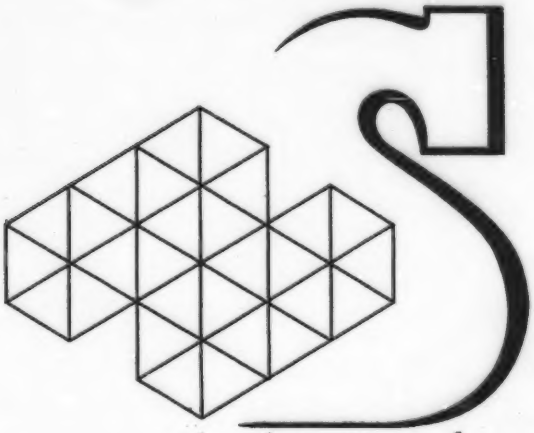

HUMANSYSTEMS
Incorporated

SOLDIERS DAY DATABASE
Expansion to Include Mounted Rifleman
PHASE I – DATA ACQUISITION REQUIREMENTS

PWGSC Contract No. W7711-6-7286/01-SRV
Order No. 7286-04

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May 1998

DCIEM No. 98-cR-46

SOLDIERS DAY DATABASE
- Expansion to Include Mounted Rifleman -
PHASE 1 – DATA ACQUISITION REQUIREMENTS

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PWGSC Contract No. W7711-6-7286/01-SRV

(Order No. 7286-04)

On behalf of
DEPARTMENT OF NATIONAL DEFENCE
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May 31, 1998

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References:

A. *Soldiers Day Population of Reference Material Final Report*, Contractor Report on PWGSC Contract W7711-7-7149/A, March 31, 1998.

B. *A Soldier's Day Authoring Manual*, Contractor Report on PWGSC Contract W7711-6-7286/001/SRV, March 31, 1997.

1. Introduction

Soldier's Day is a multimedia database designed to provide human factors information on the missions, tasks and activities performed by soldiers in relation to the clothing and equipment that they use. This information will assist research agencies, engineers, designers & contractors involved in the development of requirements and the acquisition of new items for the soldier system.

Currently, the database contains information related primarily to the dismounted rifleman. The aim of Phase I of the current project was to determine the data acquisition requirements for including mounted operations information into the Soldier's Day (SD) database. Phase II will address the actual acquisition and integration of the information into the Soldier's Day database. This will include the review, formatting, entry, and validation of the data.

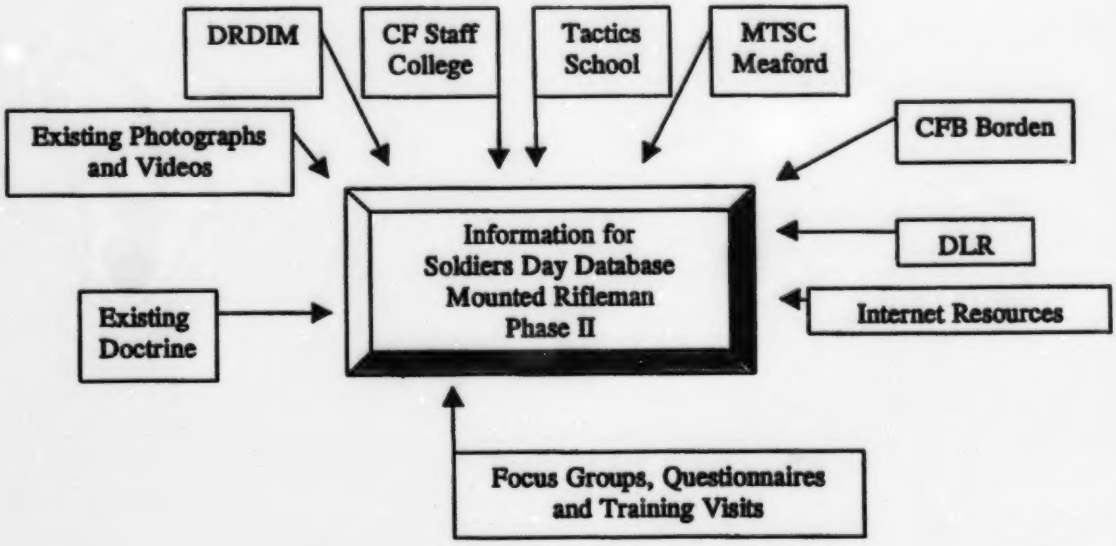
This document describes Phase I of the SD database expansion and outlines the information required to extend the Soldier's Day database to take into account the mounted rifleman operations. The report details the project scope and data requirements, proposed methods of data acquisition, program modifications required, and a draft budget for Phase II.

2. Data Acquisition

This section identifies the proposed sources of information that will be used to populate the SD database with information regarding mounted operations. The sources of information for Phase II are displayed in Figure 1. Data acquisition will focus primarily on existing doctrine, photographs and videos.

A number of agencies and personnel were visited to determine their ability to provide information relevant to mounted infantryman operations. These including DRDIM, CF Staff College, the Tactics School, MTSC Meaford, CFB Borden, and DLR. To ensure cost effectiveness, maximum use will be made of existing material (i.e. doctrine, video, pictures) to establish listings and populate the database with relevant information. If information cannot be supplied through existing materials, the information will need to be gathered through focus groups, questionnaires, interviews and/or field observations.

Figure 1: Sources of Information for Phase II



2.1. Existing Text

Searches using the 1994 Army Doctrine Catalogue have helped to identify potential sources of doctrinal information related to mounted operations. These publications are listed in Table 1. For each source of data listed in Table 1, the current status of the doctrine is provided.

Table 1: Existing Doctrine Relating to Mounted Operations

Doctrine	Status
Infantry Section and Platoon in Battle	HSI has a copy
Infantry Battallion in Battle	HSI has a copy
Combat Team Commander Handbook	HSI has a copy
Combat Service Support Vol. 6 Transportation in Battle	To be acquired
Maintenance, Vol. 1, Land Maintenance System	To be acquired
Combat Clothing and Equipment	HSI has a copy
Items of Combat Clothing and Equipment	HSI has a copy
Weapons Vol. 10	HSI has a copy
Weapons Vol. 6	HSI has a copy
Weapons Vol. 14	HSI has a copy
Weapons Vol. 12	HSI has a copy
The Warrior	HSI has a copy
NBC Concepts Vol. 12	HSI has a copy
CF Occupational Analysis Survey	HSI has a copy
Medical Standards for the CF	HSI has a copy
Trade Qualifications	HSI has a copy
Infantry Vol. 4 Patrolling	HSI has a copy
Military Training Vol. 10	HSI has a copy
Military Training Vol. 1	HSI has a copy

Humansystems currently possesses a copy of most of the publications listed in Table 1. The Scientific Authority can obtain the "To be acquired" publications through the CF Publications Depot. Publications may also be obtained through the CF Staff College (see 2.4. Humansystems will consult other doctrine contained in their library to supplement any information not found in the publications identified above.

2.2. Existing Photographs and Videos

Supporting photographic and video information will be required to optimize the multi-media format of the database. In order to search for existing material, a visit to the CF Photo Unit in Ottawa will be required. Keyword and archive searches (using the CF Photo Unit CYCLOP database) may be performed to find material in support of textual information. Searches will provide access to stock footage as well as up-to-date material.

Preliminary searches using the catalogue of Canadian Forces Audiovisual Productions has identified the videos listed in Table 2 as potential sources of information. For each source of data, the current status is provided. The Scientific Authority can order copies of videos identified as "To be acquired" from the CF Photo Unit.

Table 2: Existing Photographs and Videos Relating to Mounted Operations

Video	Status
The Mechanized Infantry Battalion	HSI has a copy
The Combat Surveillance System	HSI has a copy
Counter Surveillance	HSI has a copy
Hasty Minefield Breaching	HSI has a copy
Battle Group	HSI has a copy
Brigade Reconnaissance Squadron	HSI has a copy
Division Deception Ops	HSI has a copy
Combat Team	HSI has a copy
The Demolition Guard	HSI has a copy
Patrolling	HSI has a copy
Cold Weather Operations – 7 – Unit Level Combat Service Support	HSI has a copy
Defensive Operations	HSI has a copy
U.N. Peacekeeping Training Videos	HSI has a copy
Bryx Training Video	HSI has a copy
Tank Troop Leader in Combat	To be acquired
Tank Troop Tactics #07339A	To be acquired
Armoured Regiment	To be acquired
Administrative Road Movement	To be acquired
Effect of Terrain	To be acquired
Fourth Canadian Mechanized Brigade Group	To be acquired
Personnel Replacement System	To be acquired
Traffic Control in Combat Zone	To be acquired
Tactical Road Movement	To be acquired
Operational Feeding : Part 2 – In the Field	To be acquired
Forward Mobile Support Unit	To be acquired
NBC Defences : Army Defences	To be acquired
NBC Defences : Individual Decontamination Procedures	To be acquired
202 Canadian Forces Workshop Depot	To be acquired
MT March Discipline	To be acquired
Relationship Between Weapons and Ammo	To be acquired
Designed to Kill	To be acquired
Leopard	To be acquired
NBC First Aid Video	To be acquired
Laser Ranging	To be acquired

Additional sources of photos and videos include the base photo and video units. These units often have video footage and photographs of exercises and other events that take place on the base. Although the CF Photo Unit is often sent copies of some of the pictures, not all pictures may be held in their inventory. To obtain these photos or videos, the LAN or archives will need to be explored manually with the help of the on-site manager. For example, preliminary visits with CFB Gagetown (see 2.6) have identified a number of videos and photos that may be utilized to demonstrate tasks and activities relevant to mounted operations.

2.3. DRDIM

References relating to human factors engineering and the mounted rifleman can be obtained from DRDIM (formerly DSIS). The contact established was Barbara Aubrey, DRDIM 3-2, Information Holdings – Operations (tel: 613-992-2263, fax: 613-996-0392, email: Barbara.Aubrey@crad.dnd.ca).

DRDIM can conduct a search of military references relating to human factors and the mounted rifleman. An application for access to DRDIM will be required prior to the conduct of work. This would require application from both the Scientific Authority and the contractor.

Reference search results will be provided by DRDIM in electronic format. Search results will be based upon keywords developed in collaboration with the DRDIM representative. Keywords (and codes) will be selected to optimize the number of references while maximizing the exclusion of irrelevant material. Unclassified and unlimited references of Canadian content will be added to the database. The existing software (Import program) and procedure for sorting and entering references (Reference A) will be applied to the new references. References will be reviewed and selected by a human factors specialist to assess relevance to human factors engineering. The Import software will ensure references will not be duplicated in the SD database.

2.4. CF Staff College

The CF Staff College (215 Yonge Blvd. Toronto, Ontario) was visited on January 6, 1998 to investigate the Information Resource Centre facilities. The contact established was Mrs. Cathy Murphy (tel: 416-482-6800 ext. 6846, fax: 416-480-9935, email: murphy@cfcsc.dnd.ca).

The library can provide a good resource for magazines, books (e.g. Jane's Collection), doctrine (both U.S. and Canadian) and some videos. All resources offered at the CF Staff College are contained on a "War, Peace and Security" Database. This is a bilingual index to books, reports, speeches, conference proceedings, staff papers, videos and periodicals held by the Canadian Forces College Information Resource Centre. The database includes materials relating to the military and naval sciences, military and naval strategy, military technology, military history, peacekeeping, international law, conflict resolution, arms control and disarmament, military ethics and leadership.

Access to the War, Peace and Security database may be obtained on-site or on-line from the Internet. Access to the database from the Internet can be achieved by telnet to **library1.cfcsc.dnd.ca**. While materials may be viewed at the library, no material can be taken from the premises.

2.5. CFB Gagetown – Tactics School

The Tactics School at CFB Gagetown was visited on March 10, 1998. The primary aim of the visit was for familiarization with the Tactics schools Intermediate Tactics Course (ITC 1) interactive course. The additional aim of the visit was to investigate the data acquisition process used by the ITC developers and the sources used to acquire information.

Contacts included Major Jonathon Daniels (tel: 506-422-2000 x2637) and Lt. Col. Mark Hutchings.

Discussions were made regarding the development process and acquisition of information for the ITC. At the time of the visit, the ITC program was still a prototype. Some modules had not been completed. The target completion date was identified as mid-April.

ITC is the Intermediate Tactics Course. It is designed as an educational aid for soldiers undergoing "distance" education. It will be issued as a "primer" or "refresher" for students. The aim of the Tactics school is to train junior army officers on the interaction of combat forces on the battlefield. The ITC imparts the elements of tactics at Combat Team level in all phases of war. It contains information and modules related to Enemy Forces, Sustainment, Battle Group operations, Operations of War, Friendly Forces, Staff Duties, and a series of Confirmation Questions.

Possible information contained in the ITC that are directly relevant to Phase II were the Orbat charts contained in the Friendly Forces module. The Orbat contained tasks, roles, tactics, tech sheets, and pictures of vehicles. The information may be used to supplement other information obtained through other sources.

The sources of information used for data acquisition included CF doctrine, the CF photo and video unit, and various base resources. Base resources included the base photo/video unit, and the LAN network (containing pictures commonly used for presentations and training). The pictures and video clips available from the base resources could not be specified at the time of this visit. Discussions indicated that base photos and videos taken during the various exercises conducted and CFB Gagetown would be good information to acquire for phase II. For videos, there are three "highlight" videos ("WCTC Video Clips") that contain "the best of" the entire video collection. These videos should be copied for use in Phase II. Copies of existing electronic photos (from the LAN and the photo unit) could be written to CD for use in Phase II.

2.6. Department of Army Doctrine

Teleconferencing was held with Major Peter Bartlett (613-541-5010 x5917) at the Department of Army Doctrine (Kingston, Ontario). Discussions indicated that doctrine concerning maneuver warfare is currently in the preliminary stages of being updated. A writing board is tentatively scheduled to meet in mid May 1998 with a first draft to be produced in August 1998.

The doctrine most relevant to the mounted rifleman was identified as the latest version of "Infantry Section and Platoon in Battle." Humansystems currently possesses a copy of this document. It was recommended that other doctrine be obtained through the CF Publications Depot (see 2.1).

An additional recommended source for doctrinal information was the Canadian Land Force Electronic Battle Box (prototype). This is a CD based program that aims to provide commanders and staff with common electronic reference data and staff tools for use within a command post. It provides much of the reference material and staff data that should be available within a command post. Information relative to Phase II includes staff data for weapons and equipment, and representative in-service doctrinal manuals and publications in Hyper Text Markup Language (HTML) format.

Phase II may require access and use of the Canadian Land Force Electronic Battle Box.

2.7. MTSC Meaford

A visit was made to MTSC Meaford on March 3, 1998. The aim of the visit was to investigate the vehicles and supporting information regularly kept on-site.

The contact for the visit was Captain Newton (tel: 519-538-1371 x6784). A tour of the Meaford facilities was conducted by W.O. Martin (x6564).

The following vehicles were viewed in the Maintenance building.

- M113 Recovery Vehicle - ARVIL
- HLVW Wrecker (10 ton)
- HLVW Cargo
- Coyote (Recce) -A GMDD information package was obtained during the visit.
- Bison (APC)
- Cougar
- Kodiak
- Field Kitchen
- LSVW - Ambulance (other variants include 'command post' and 'cargo' not on-site)
- MLVW
- ILTIS Canadian Light Utility Truck
- Grizzly (AVGP)

Photographs of the on-site vehicles were taken for future reference for Phase II.

Discussions with W.O. Martin indicated that the Training Centre (Standards NCO – Sgt. Vidler, tel: 519-538-1371 x6819, fax: 519: 538-6637) could put together an AFV package with general information regarding the vehicles listed above. Information for the package would be obtained from individual pamphlets and the Jane's collection.

Discussions with W.O. Martin also indicated that future exercises would provide a good opportunity for viewing vehicles in operation. Pictures and video of the vehicles could be taken at such time.

Contact was made with GM Diesel Division to obtain marketing pamphlets, pictures and video. Contacts included Paul Brooks and Bruce Gaudet (tel: 519-452-5474 / 519-452-5434). GMDD is currently accumulating material that may be included in Phase II.

2.8. CFB Bordon

On March 5, 1998, a visit was made to CFB Bordon. The aim of the visit was to investigate the vehicles and supporting information regularly kept on-site.

The contact for the visit was Captain Hanson (tel: 705-424-1200 x3605). A tour of the CFB Facilities was conducted by W.O. Santerre.

The following vehicles were viewed in the Vehicles and Explosions Building.

- BV 206 (Northern Ops)
- M113 ARVIL (Armoured Recovery Vehicle Light)
- Bison
- Grizzly
- Coyote
- M113 (there are approximately 30 different variants)

The following vehicles were viewed in the Leopard Maintenance Building:

- Leopard ARVL
- Leopard Tank

Photographs of the on-site vehicles were taken for future reference.

Discussions indicated that the information relating to vehicles required for Phase II are contained in the operators' manuals. Operators' manuals were designated as "MB" or "MA". These manuals were kept at various locations on-site and could not be readily located or copied.

2.9. DLR 10

A Visit to DLR 10 (110 O'Connor Street, Ottawa) was made on May 7, 1998. The contact for the visit was Major JMRG Brosseau – PMO LAV (APC Vehicle Replacement Project) (tel: 613-995-8682).

The aim of the visit was to investigate the sources of information existing at DLR to support the expansion of Soldier's Day to include mounted operations. More specifically, to investigate the availability of information regarding the new APC (LAV III).

Some GMDD marketing material (information sheets) for the prototype vehicles were provided as well as a description of the current state of the APC Replacement Project. Discussions indicated that the APC replacement had not been finalized.

Operator manuals for the vehicles were not available in either printed or electronic form. It was suggested that the desired manuals be requested directly from the CF Publications Depot. A formal request would need to be made by the Scientific Authority.

Suggestions were made to utilize resources in the Life Extension Project. The PMO, Major Franklin, (613-997-4113) may be able to provide information regarding the APC's remaining in the CF system (e.g. M113, Bison, Grizzly). Because the numbers of vehicles and their intended use may change in the near future, it will be important to validate information intended for use in the SD database. Phase II would require the involvement of the Vehicle Replacement Project and Life Extension Projects to provide and review information relevant to the vehicles.

2.10. Internet Resources

Internet resources were explored for additional technical information that they can provide in Phase II. These may include various sites within the Land Force Command (www.lfc.dnd.ca). For example, vehicle information contained on the LFC website has been used to identify vehicle information needed for Phase II (see 3.2). Additional Internet Resources may also be found to support the contents of the database.

2.11. Focus Groups, Questionnaires and Training Visits

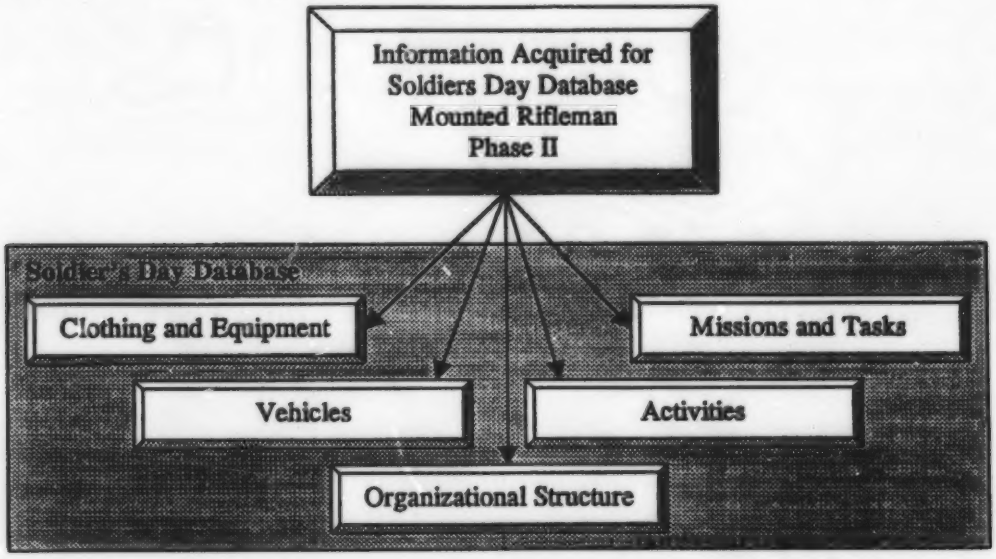
Once the options identified above to find and acquire existing materials have been explored, other means of data acquisition may be required to obtain any outstanding information. These means may include focus groups, questionnaires and training visits.

Part of an operational exercise at CFB Shilo (Manitoba) was attended to investigate the ability to gather information regarding mounted operations. A number of good opportunities existed to gather photographs, video and input from the soldiers. This information can be captured easily while minimizing the intrusiveness of the observer.

The extent with which these options are used will depend on the availability of corresponding exercises during Phase II.

3. Data Requirements

This section outlines the information required to expand the SD database to include mounted operations. The sections identify the data items required to populate clothing and equipment, vehicles, organizational structure, missions and tasks, and activities. The method for cataloguing the acquired data is also discussed.



For each item listed below, the sources used to identify the required data items are provided. In addition, the status of the data requirements is also indicated, as the Soldier's Day database already possesses some of the information. It is possible that after further analyses, some items may be determined irrelevant or additional items may be required.

3.1. Clothing and Equipment

The following clothing and equipment items (Table 3) are required for the mounted infantryman. For each item, data should provide (if possible) all views, schematics, information sheets, soldier comments, photographs, and videos.

Table 3: Clothing and Equipment Items Relating to Mounted Operations

Required Data Items	Source	Status
Jacket, Cold, AFV Crews	Combat Clothing and Equipment	Entered in SD
Trousers, Cold, AFV Crews	Combat Clothing and Equipment	Entered in SD
Can, Distillate Fuels, Military, Plastic	Combat Clothing and Equipment	Entered in SD
Decontamination Apparatus, Crew Level	Combat Clothing and Equipment	Entered in SD
Decontamination Apparatus, Sub-Unit Level	Combat Clothing and Equipment	Entered in SD
Helmet, Combat Vehicle Crewmans	Items of Combat Clothing and Equipment	To be Entered
Coveralls, Temperate, AFV Crewman	Items of Combat Clothing and Equipment	Entered in SD
Jacket and Coveralls, Cold, AFV Crewmen	Items of Combat Clothing and Equipment	To be Entered
Tent, Vehicle Maintenance, Tracked & Wheeled	Items of Combat Clothing and Equipment	Entered in SD
Tent, Maintenance, Frame-Type, Medium	Items of Combat Clothing and Equipment	Entered in SD
Mortar 60mm	Weapons Vol. 10	Entered in SD
Short Range Anti-Armour Weapon – 84mm	Weapons Vol. 6	Entered in SD
Short Range Anti-Armour Weapon – Eryx	Training Video	Entered in SD
Short Range Anti-Armour Weapon – M72-C7	The Warrior	Entered in SD
.50 Cal Machine Gun	Weapons Vol. 14	Entered in SD
General Purpose Machine Guns – C6	Weapons Vol. 12	Entered in SD
Coveralls, CVC	DLR documents	Entered in SD
M12A1 Decon Apparatus	NBC Concepts Vol. 12	To be Entered
Trailer, Water 1000 Gallons	NBC Concepts Vol. 12	To be Entered
Washrack, Vehicle Decon.	NBC Concepts Vol. 12	To be Entered
Anti-foam Compound	NBC Concepts Vol. 12	To be Entered
Anti-set Compound	NBC Concepts Vol. 12	To be Entered
STB – Supertropical Bleach	NBC Concepts Vol. 12	To be Entered
Communication Devices and Headsets	Discussions	To be Acquired
Fire Extinguishers	Discussions	To be Acquired

3.2. Vehicles

The following vehicles (Table 4) are required for the mounted infantryman. A new button entitled "Vehicles" will be added to the Clothing and Equipment menu screen. It will include the following vehicles and associated information.

Table 4: Vehicles Relating to Mounted Operations

Required Data Items	Status
LAV III (APC Vehicle Replacement)	To be Entered
M113A1 Armoured Personnel Carrier	To be Entered
Armoured Vehicle General Purpose	To be Entered
Bison	To be Entered
LAV Recce (Coyote)	To be Entered
BV 206 All-Terrain Carrier	To be Entered
Leopard Tank	To be Entered
M109 Medium Self-propelled Howitzer	To be Entered
Air Defense Antitank System	To be Entered
Heavy Logistic Vehicle Wheeled	To be Entered
Medium Logistic Vehicle Wheeled	To be Entered
Light Support Vehicle Wheeled	To be Entered
Ultis Canadian Light Utility Truck	To be Entered
Truck Cargo, 5 tonne	To be Entered
Bell CH145 Griffon Helicopter	To be Entered (optional)

Emphases and associations will focus primarily on the first five data items because they are most likely to be relevant to the mounted infantryman. For each item, data will provide (if possible) all views, schematics, specifications, characteristics, soldier comments, photographs, and videos of soldiers using the item. Subsections with descriptions will be used to detail the different variants that are used.

3.3. Organizational Structure

The following organizational structure items (Table 5) are required for the mounted infantryman. For each data item, information will provide (if possible) general descriptions, services, responsibilities, duties and organizational weapon and equipment requirements.

Table 5: Organizational Structure Relating to Mounted Operations

Required Data Items	Source	Status
Company Headquarters	The Infantry Battalion in Battle	To be Entered
Command Post Vehicle	The Infantry Battalion in Battle	To be Entered
Crew Served Weapons Vehicle	The Infantry Battalion in Battle	To be Entered
Rover	The Infantry Battalion in Battle	To be Entered
Cargo Carrier	The Infantry Battalion in Battle	To be Entered
Communications / Driver	The Infantry Battalion in Battle	Entered in SD
Storeman / Driver	The Infantry Battalion in Battle	Entered in SD
Platoon Headquarters	Infantry Vol. 3 : Section and Platoon In Battle	To be Entered
Platoon HQ Driver	Infantry Vol. 3 : Section and Platoon In Battle	Entered in SD
Rifle Section – Mounted Ops Driver	Infantry Vol. 3 : Section and Platoon In Battle	To be Entered
Driver : Demographics	CF Occupational Analysis Survey	To be Entered
Driver : Medical Standards	Medical Standards for the CF	To be Entered
Driver : Battle Readiness Standards	The Warrior	Entered in SD
Driver : Trade Qualification Requirements	Trade Qualifications	To be Entered

3.4. Missions and Tasks

The following missions and tasks items are required for the mounted infantryman. For each existing battle task (e.g. Section Attack, Patrolling, etc.), effort will be made to include additional data files that address considerations for mounted operations. As well, supporting pictures and videos outlining the sub-tasks will be included wherever available.

Required Data Items	Source	Status
Section Attack : Mounted Ops and Mechanized Attack SP 6-4	Infantry, Vol. 3, Section and Platoon in Battle (6-13 Platoon Battle Drills)	To be Entered
Attack in BUA : Mounted Ops	Infantry, Vol. 3, Section and Platoon in Battle	To be Entered
Wood Clearing : Mounted Ops	Infantry, Vol. 3, Section and Platoon in Battle	To be Entered
Cross and Breach : Mounted Ops	Infantry, Vol. 3, Section and Platoon in Battle	To be Entered
Section Defence : Mounted Ops	Infantry, Vol. 3, Section and Platoon in Battle	To be Entered
Defence in BUA : Mounted Ops	Infantry, Vol. 3, Section and Platoon in Battle	To be Entered
Withdrawal : Mounted Ops	Infantry, Vol. 3, Section and Platoon in Battle	To be Entered
Demolition Guard : Mounted Ops	Infantry, Vol. 3, Section and Platoon in Battle	To be Entered
Passage of Lines : Mounted Ops	Infantry, Vol. 3, Section and Platoon in Battle	To be Entered
Relief in Place : Mounted Ops	Infantry, Vol. 3 (10-8 Relief by a Mechanized Platoon)	To be Entered
Airmobile Ops : Mounted Ops	Infantry, Vol. 3, Section and Platoon in Battle	To be Entered
Patrolling : Mounted Ops	Infantry, Vol. 4, Patrolling (7-1 to 7-5)	To be Entered

3.5. Activities

For each existing activity (e.g. C7 Firing, Navigation, Camouflage and Concealment, etc.), effort will be made to include additional data files that address considerations for mounted operations. The following additional activities are required for the mounted infantryman.

Required Data Items	Source	Status
Movement by Vehicle	Infantry, Vol. 3 (13-5 to 13-7)	To be Entered
Tactical Movement with Vehicles	Infantry, Vol. 3 (13-7 to 13-11)	To be Entered
Vehicle Anti-Ambush Drills	Infantry, Vol. 3 (14-6) / Mil Training Vol. 10	To be Entered
Tank-Infantry Battle Drills	Infantry, Vol. 3 (Annex P)	To be Entered
Platoon Formations	Infantry, Vol. 3 (5-10)	To be Entered
Vehicle Camouflage and Concealment	Mil Training Vol. 1 Fieldcraft : Chapter 8	To be Entered
Convoy Escort (peacekeeping)	Peacekeeping Videos	Entered in SD
Roadblocks (peacekeeping)	Peacekeeping Videos	Entered in SD
VIP Escort (peacekeeping)	Peacekeeping Videos	Entered in SD
Cold Weather Ops (vehicle use and maintenance)	Cold Weather Ops Video	To be Entered
Vehicle Decontamination (NBC)	NBC Ops Doctrine	To be Entered
Mounting and Dismounting Vehicles	Discussions - MTSC Meaford	To be Entered
Driving	Discussions - MTSC Meaford	To be Entered
Vehicle Maintenance	Discussions – MTSC Meaford	To be Entered
AFV Recognition	CTC Gagetown Lesson Plan	To be Entered
Fire Orders	Infantry, Vol. 3	To be Entered
Hand Signals : Mounted	Infantry, Vol. 3	To be Entered
Night Signals : Mounted	Infantry, Vol. 3	To be Entered
Target Indication	Infantry, Vol. 3	To be Entered

3.6. Cataloguing of Acquired Data

Once received at Humansystems, the title and format (e.g. publication, video, photo, audio, etc.) of the materials will be recorded on an inventory list. A number will be assigned to the material for quick identification and reference. A storage closet at Humansystems will be dedicated to the processing and storage of Soldier's Day material. The material will be stored in magazine boxes on shelves in an ordered manner (according to the assigned number) to provide easy and quick reference and access.

4. Data Integration

Integration of the data will continue to use established procedure as identified in A Soldier's Day Authoring Manual (Reference B). Once data is retrieved from the identified sources, the data must be reviewed to assess its content. Data will be entered electronically and formatted to correspond to the acceptable formats.

The following sections address the proposed software modifications and the associated memory requirements.

4.1. Software Modifications

Software modifications will mainly consist of cosmetic changes. This will include the addition of buttons and the related linkages to information. Some of the proposed software modifications are identified below.

1. Add a new "Vehicles" button to the Main Menu Screen.
2. In a new "Vehicles" menu screen, add sub category buttons for "tanks", "APC", etc. Each buttons should have a representative picture.
3. To the browse screen, add an "Associated Vehicles" button
4. To the Organizational Structure menu, add the relevant mounted soldiers.
5. To the Missions and Tasks menu, add a "Mounted Ops" button.

Additional changes and debugging will be required as Phase II progresses.

4.2. Memory Requirements

Soldiers Day currently requires approximately 325 MB of memory. It is estimated that the expansion phase of Soldiers Day will require approximately 200 MB. The addition of this memory to the program is achievable within the 650 MB capability of standard CDs.

Programming Changes	10 MB
Approx. 200 pictures x 200 kb/picture	40 MB
Approx. 40 videos x 3 MB/video	120 MB
Textual Files	15 MB
Total Memory Requirement	200 MB

4.3. Computer Upgrades

Computer upgrades will be required to provide suitable programming capabilities. The addition of a new SCSI 4.5 GB Hard Drive is required to supply adequate memory for storage of authoring software and video files. Increasing the monitor size is recommended to better support interaction with the many programs opened during the construction of the database.

5. Summary and Budget Proposal

The expansion of the existing Soldier's Day to include mounted infantry operations is feasible. This report has outlined the information that would be required, the possible sources to provide the information, and the procedures in which to acquire access to those sources. In addition, this report has outlined how the data will be integrated and the associated software modifications required.

Below is a draft budget proposal for the second phase of this project. The primary aim of Phase II will be to acquire and integrate the information (identified in Phase I) into the Soldiers Data Database. Phase II may also include preliminary validation of materials to ensure user relevance, operational relevance, and realism.

Draft Budget:

Soldier's Day Database Phase II - Populate Mounted Rifleman

The amounts shown in the respective tasks of this budget are estimates and subject to change.

TASK	Report Section	TOTAL $ PER TASK
1.0 Project Planning		
Start up Meeting		
Prepare Detailed Project Management Plan		
		$1,500.00
2.0 Clothing and Equipment		
Aquire Identified Resources	3.1	
Travel to Ottawa (Photo Unit, NDHQ)	2.2	
Review Resources		
Format Data		
Enter Data into Database		
Make Associations to Items		
		$12,000.00
3.0 Vehicles		
Aquire Identified Resources	2.6, 2.7, 2.8, 2.9, 2.10, 3.2	
Review Resources		
Format Data		
Enter Data into Database		
Make Associations to Items		
		$11,000.00
4.0 Organizational Structure		
Aquire Identified Resources	3.3	
Review Resources		
Format Data		
Enter Data into Database		
Make Associations to Items		
		$9,000.00
5.0 Missions and Tasks (Mounted)		
Aquire Identified Resources	2.1, 2.6, 3.4, 3.5	
Travel to CF Staff College (x3)	2.4	
Review Resources		
Format Data		
Enter Data into Database		
Make Associations to Items		
		$12,500.00
6.0 References (Mounted)		
Correspondance with DRDIM	2.3	
Review References		
Refresh Keywords		
Make Associations to Items		
		$4,000.00

Draft Budget:

Soldier's Day Database Phase II - Populate Mounted Rifleman

The amounts shown in the respective tasks of this budget are estimates and subject to change.

TASK	Report Section	TOTAL $ PER TASK
7.0 Additional Data Acquisition		
Travel to CFB Gagetown		
Review CFB Gagetown Resources	2.5	
Observe CF Exercises	2.11	
		$4,000.00
8.0 Project Management		
Progress Reports		
Cataloguing of Acquired Data	3.6	
Final Report		
Review Software Modifications		
Revisions to Manuals		
		$5,000.00
Administration		$3,000.00
Contingency		$3,000.00
	TOTAL COST	$65,000.00
EXPENSES		
Travel		3,000.00
Phone/Fax		50.00
Courier		50.00
Photocopy		200.00
Computer Upgrades	4.3	2,500.00
Programmer Modifications	4.1	3,000.00
Miscellaneous		50.00
TOTAL EXPENSE $		8,850.00
LABOUR PLUS EXPENSES		73,850.00
GST		5,169.50
TOTAL COST		79,019.50